

HESPEROCHERNES LAURÆ, A NEW SPECIES
OF FALSE SCORPION FROM CALIFORNIA
INHABITING THE NEST OF VESPA

BY JOSEPH CONRAD CHAMBERLIN

*Riverside, California***Hesperochnes** J. C. Chamberlin, new genusOrthotype, *Hesperochnes lauræ* n. sp., California.

Tarsi single-segmented; femoral articulations all distinct, those of III and IV structurally very different from I and II (Figs. E, F); trochanter III and IV never pedicellate and always differing structurally from I and II (Figs. E, F); neither eyes nor eye-spots present; flagellum of four blades; galea slightly larger and more complex in female than in male; sub-basal and basal setæ of chelicerae both stout and with minute terminal and marginal teeth (basal seta shortest); laminal and interior setæ long, slender and acuminate, exterior seta short acuminate as is the galeal seta; lamina exterior well developed; lamina interior with a slender, dentate, terminal tooth and three more or less dentate sub-apical lobes; fingers of claw with a few accessory teeth (Figs. B, C); chætotaxy of claw as figured (Figs. B, C); poison duct of long type, in movable finger only, the nodus ramosus lying between T and ST; carapace and tergites as well as appendages more or less evenly and finely rugose; clothed with broadly dento-spatulate or clavate setæ; tactile seta of tibia and tarsus IV both lacking; tarsus IV with a dome-like "sense-spot," one-third removed from base of segment; abdomen without terminal tactile setæ; fourth legs extending even with or slightly beyond tip of abdomen; interscutal and intersegmental membranes of a rugosely wrinkled or papillate character, with the scutæ themselves small and more or less round-cornered, never sharply delimited, merging more or less gradually into the intersegmental and interscutal membranes; last four tergites and sternites slightly but distinctly recurved; male genital structures of the type here figured (Fig. I); seminal receptacles of female, as in *Chernes*, consisting of a pair of long, slender, more or less coiled tubes which terminate internally in a conspicuous sub-ovate enlargement; chætotaxy of vulva of type figured (Fig. J); carapace distinctly longer than greatest breadth (which point is distinctly anterior to the posterior margin); both carapacial furrows equally well developed, prominent and groove-like; the anterior furrow of the carapace slightly nearer the posterior than the anterior carapacial margin, the posterior furrow distinctly nearer the posterior border than to the anterior furrow; legs typical; coxal area of ordinary type, fairly hirsute (Fig. D); tergal and sternal border setæ numbering from 8-12 per segment.

This new genus is closely related to true *Chernes*, differing

therefrom principally in having one more blade in the flagellum, a carapace distinctly longer than the greatest (posterior) breadth and in possessing considerably fewer tergal and sternal border setæ. In addition to these characters the male genitalia exhibit some important differences.

No doubt some of the already described "Chelanops" of the Pacific Coast will also fall into this genus, but none can be referred hereto on the basis of the literature alone. The new genus will probably be found to be precinctive to the western portion of North America.

Hesperochnes lauræ J. C. Chamberlin, new species

Holotype, ♂, JC-530.01001; allotype, ♀, JC-530.01002, Stanford University campus, California, collected by Mr. Carl D. Duncan of San José State Teachers' College, "in the nest of the common terrestrial yellowjacket" (*Vespa occidentalis* Cr. ?), July 19, 1924. Holotype and allotype are in the author's collection. Paratypes will be deposited in the collections of the California Academy of Sciences and the Department of Entomology of Stanford University. The type collection comprises 10 adult and 4 immature individuals. A single adult female of this species was collected in the nest of a wasp (also at Stanford University) by Dr. Isabel McCracken, who very kindly turned the specimen over to the writer.

Male. Anterior carapacial furrow twice as far removed from posterior furrow as posterior furrow is from posterior carapacial margin; palpi essentially as in female (Fig. A); arrangement of tactile setæ, accessory teeth and poison duct shown in Fig. B; movable finger with about 45 sub-equally developed, contiguous, conical teeth, fixed finger with 39 or 40; sense-spots few, 1-3 at base of each finger; galea smaller than in female (Fig. G); serrula exterior with seventeen teeth, the basal one of which is double as long as the others and slenderly acute (Fig. H); anterior blade of flagellum broadest and longest, anteriorly dentate; other flagellal blades successively shorter and slenderer, the fourth very small; tergal chætotaxy, 9:9:8: 2-0/10: 2-0/10: 2-0/10: 2-0/10: 2-0/10; ventral chætotaxy (beginning with fourth segment, even with posterior spiracles), 8: 12: 16: 12: 11: 10: 10; tergal setæ broadly dento-spatulate or clavate (Fig. K); interior palpal setæ clavate, exterior less so, in some cases scarcely more than thickened dentate type; exterior setæ of 7th ventrite clavate, inner ones simple; all but median setæ of 8th ventrite clavate; all border setæ of 9-11th ventrites clavate; last ventral segments with a fair number of scattered microlyrifissures; with

about four lyrifissures to each tergite and sternite; genitalia (general appearance) as shown in Fig. I.

Female. Similar in most respects to male; palpus as shown in Fig. A; structures of claw shown in Fig. C; galea somewhat larger and more complex than in male (Fig. L); fingers of claw each with two or three more marginal teeth than in the male; chætotaxy of vulva shown in Fig. J.

Male (Holotype) JC-530.01001. Total length, 2.2 mm. K, 0.64 mm. Carapace (1.13-0.64, 0.89). Chelicera (0.32-0.17, 0.24). Palpus (0.61-0.36, 0.51-0.47) (0.60-0.31) (1.00-0.32) (0.97-0.37) (1.57-0.53) (0.82-0.22). Leg I, (0.24-0.38, 0.35-0.39) (0.23-0.16) (0.27-0.19, 0.46-0.16) (0.54-0.12) (0.53-0.08). Leg IV, (0.12-0.24, 0.35-0.32) (0.22-0.19) (0.30-0.19, 0.65-0.19) (0.81-0.13) (0.60-0.09).

Female (Allotype) JC-530.01002. Total length, 2.6 mm. K, 0.67 mm. Carapace (1.10-0.65, 0.96). Chelicera (0.38-0.18, 0.26). Palpus (0.62-0.38, 0.54-0.49) (0.65-0.34) (1.00-0.35) (0.94-0.39) (1.58-0.55) (0.81-0.21). Leg I, (0.26-0.40, 0.37-0.42) (0.23-0.18) (0.26-0.20, 0.51-0.18) (0.53-0.12) (0.52-0.09). Leg IV (0.18-0.22, 0.41-0.31) (0.26-0.23) (0.34-0.19, 0.69-0.21) (0.78-0.14) (0.63-0.10).

Remarks. Too much stress cannot be laid upon the necessity of accurate appendicular measurements in making correct determinations of species belonging to this and other related genera.

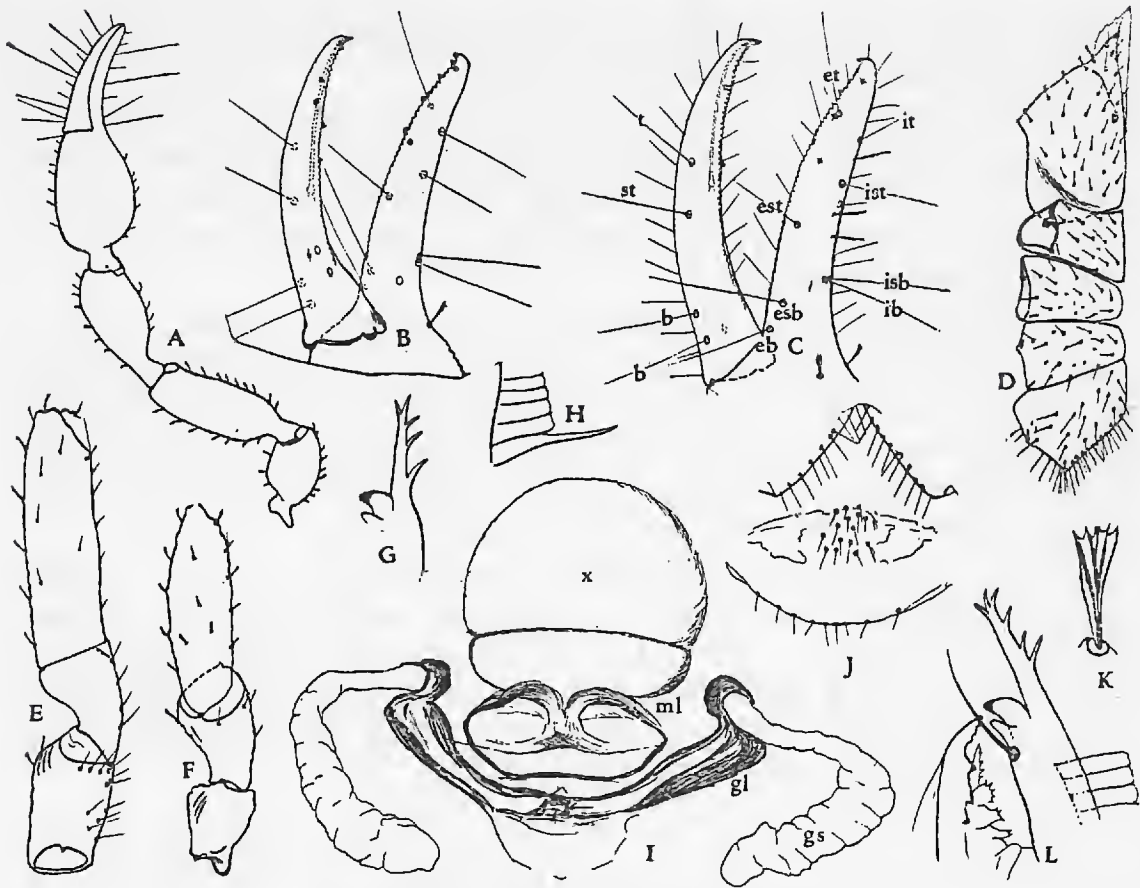
This species is named for Laura Anne Chamberlin.

CAPTIONS FOR FIGURES

(See next page)

Hesperochnes lauræ n. sp. Structural abbreviations (and mode of taking measurements) are the same as utilized by the present author in "The Cheiridiinæ of North America," Pan-Pacific Entomologist, I, pp. 32 and 40.

A, ventral aspect of right palpus. ♀ 530.01002. B, fingers of claw showing structural details. ♂ 530.01001. C, fingers of claw showing structural details. ♀ 530.01002. D, coxae of left legs. ♀ 530.01002. E, trochanter and femur of leg IV. ♂ 530.01001. F, trochanter and femur of leg I. ♂ 530.01001. G, galea. ♂ 530.01001. H, basal teeth of serrula exterior. ♂ 530.01001. I, general appearance of male genitalic structures. ♂ 530.01003. J, chætotaxy of vulva. ♀ 530.01002. K, tergal seta from median tergite. ♀ 530.01002. L, tip of chelicera of female showing structural details. ♀ 530.01002.



Hesperoernes lauræ Chamberlin.

PERSONALS

Mr. P. H. Timberlake, formerly of the Hawaiian Sugar Planters' Association of Honolulu, is now at the Citrus Experiment Station, Riverside, California, where he is associated with Professor Harry S. Smith in the study and introduction of beneficial insects.

Mr. E. P. Van Duzee has recently returned from Arizona, where, in association with Mr. J. O. Martin, he spent five weeks collecting insects for the entomological department of the California Academy of Sciences. Conditions there were unfavorable, in that the summer rainfall had been deficient and insect life had not developed as freely as usual. However, a very considerable collection of insects was obtained, among them about five thousand moths taken at light. These will supplement the fine series of Arizona moths in the Koebele collection, and gives the Academy a really valuable representation of the exceptionally interesting moth fauna of Arizona. The beetles and other insects are now in the process of mounting, and when this work is completed it is expected they will be found equally as interesting as the moths.